# FORECAST DISCUSSION FOR MAY 28, 2013

We've finished the May 28, 2013 Bulletin 120 (B120) forecast update. The forecast includes observed conditions through the morning of May 28, 2013 and is posted at http://cdec.water.ca.gov/cgi-progs/iodir?s=b120up.
**This forecast is the last update for the Water Year.**

## Forecast Summary:

Considering the rivers forecasted in the B120 update, the projected median April-July (AJ) runoff in the major Sierra river basins ranges from 11 percent on the Tule River to 56 percent for the Total Inflow to Shasta Lake. Compared to last week's update, all forecasts dropped or stayed the same except the forecast for the Kern River which increased 3 percent due, in part, to the May flows being higher than expected. The Sacramento, San Joaquin, and Tulare Lake regions are expected to produce 44, 44, and 30 percent of the normal April-July runoff. For all basins except the Sacramento Inflow to Shasta Lake, the Sacramento River at Bend Bridge, and the Tuolumne River, the expected AJ runoff is less than 45 percent of average. South of the San Joaquin River, the expected AJ runoff is less than 35 percent of average.

## Runoff:

In the Sierra, the full natural flows for about the first 27 days of May range from 9 percent of average on the Tule River to 55 percent of average on the Tuolumne River. Currently, all rivers south of the Yuba River are flowing at a rate less than half of the rate observed near the first of May. It appears that the Tule River will flow at a rate near 10 percent of the usual May volume. The noteworthy item regarding this water year is the abrupt change in weather and flows with the change in calendar year. Flows in November and December were over 200 percent of normal for many rivers. During the January through April period, however, the flows in the three main Sierra basins was about half of average.

## Precipitation:

Through May 29, the Northern Sierra 8-Station index has recorded 1.3 inches of precipitation for May. This is 62 percent of the May monthly average of 2.1 inches. This is a gain of 0.4 inches since last week. The seasonal total-to-date (May 29) is now 42.4 inches which represents 89 percent of average-to-date and 85 percent of the expected Water Year total of 50 inches. The average total for this index during June and July is only 1.2 inches.

The San Joaquin 5-Station Index has gained 0.7 inches of precipitation for May. This represents 39 percent of the May monthly average of 1.8 inches. The seasonal total-to-date is 25.8 inches, representing 67 percent of average-to-date and 63 percent of the expected Water Year total of 40.8 inches.

**Even though May is not complete, it appears that the January-May period will be the driest on record for all regions of the Sierra.**

## Snowpack:

The remarkable change in the snow water content (SWC) since January 1 is evident by noting that the statewide percent of average, based on snow sensors, was 137 percent of normal on January 1. By May 1, snowmelt and lack of snowfall had been so prevalent that nearly 90 snow courses were bare and the statewide SWC was about 15 percent of average. Just two years ago on June 1, the statewide SWC was

almost 100 percent of the **April** 1 average. Since the beginning of April, the ablation and snow gains in the southern Sierra closely approximates that of the record low year of 1977.

## Weather and Climate Outlook:

The CNRFC 6-Day QPF product shows no precipitation anywhere in California. Freezing elevations currently exist above 11,000 feet over the Sierra. These elevations are expected to rise to near 15,000 feet by Saturday and remain at that level for the rest of the period.

Both the current NWS Climate Prediction Center's (CPC) 6 to 10 Day and 8 to 14 Day Outlooks forecast above normal temperatures and below normal precipitation for all of California.

The CPC 30-day outlook for June, updated May 16, calls for an increased chance of warmer than normal temperatures and below normal precipitation for all of the Sierra.

The CPC 90-day outlook for June-Aug, also updated May 16, indicates an increased chance of above normal temperatures for all of the Sierra. The same forecast indicates equal chances of above and below normal precipitation for all of the Sierra. There is an increased chance of below normal precipitation over the far northern part of the state.

## Next Update:

**A reminder: The posted bulletin is the last B120 product for this water year.**

If you have any questions regarding this forecast or need assistance prior to that update, please contact a member of the Snow Surveys staff.

## Snow Surveys Staff Contact Information:


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